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(56) Documents Cited
GB 2199287 A   GB 2141569 A   US 4337890 A
US 4260656 A

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(54) Parking ticket and ticket issuing machine.

(57) A ticket (12) for use in parking control, is separable into two parts (15 and 16) by a perforation line (14).
Part (15) is designed to be detached from the remainder of the ticket and retained by the user and carries data
concerning the parking expiry time in conventionally readable form. Part (16) is designed to be adhered to a
vehicle windscreen by a detachable adhesive back sheet of the ticket and carries the same expiry time data in
a coded format at (23). Also disclosed is a ticket issuing machine designed to print the data in this format on a
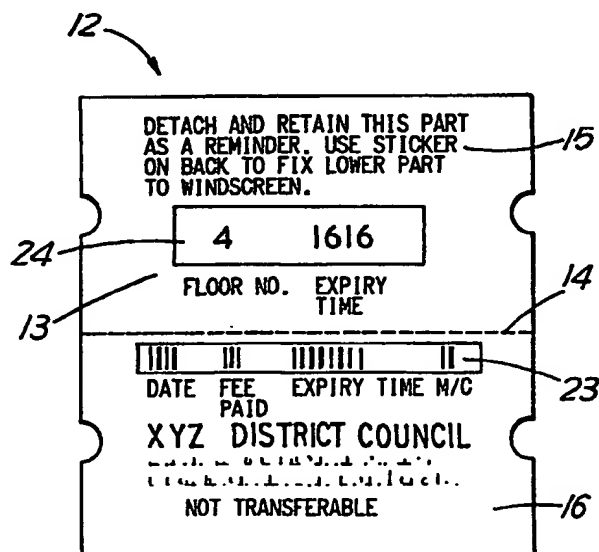ticket and a method of controlling parking using such a ticket.

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DETACH AND RETAIN THIS PART     15
AS A REMINDER. USE STICKER
ON BACK TO FIX LOWER PART
TO WINDSCREEN.

24      4      1616

13    FLOOR NO.   EXPIRY      14
                  TIME

      |||||  |||  ||||||||  ||
                                23
      DATE  FEE   EXPIRY TIME M/C
            PAID
      XYZ  DISTRICT COUNCIL

      NOT TRANSFERABLE           16
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FIG.1

GB 2 270 497 A

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1990.

12

DETACH AND RETAIN THIS PART
AS A REMINDER. USE STICKER
ON BACK TO FIX LOWER PART
TO WINDSCREEN.

15

| 4 | 1616 |

24

FLOOR NO.   EXPIRY
TIME

13

14

|IIII   III   IIIIIIII   II |

23

DATE   FEE   EXPIRY TIME M/C
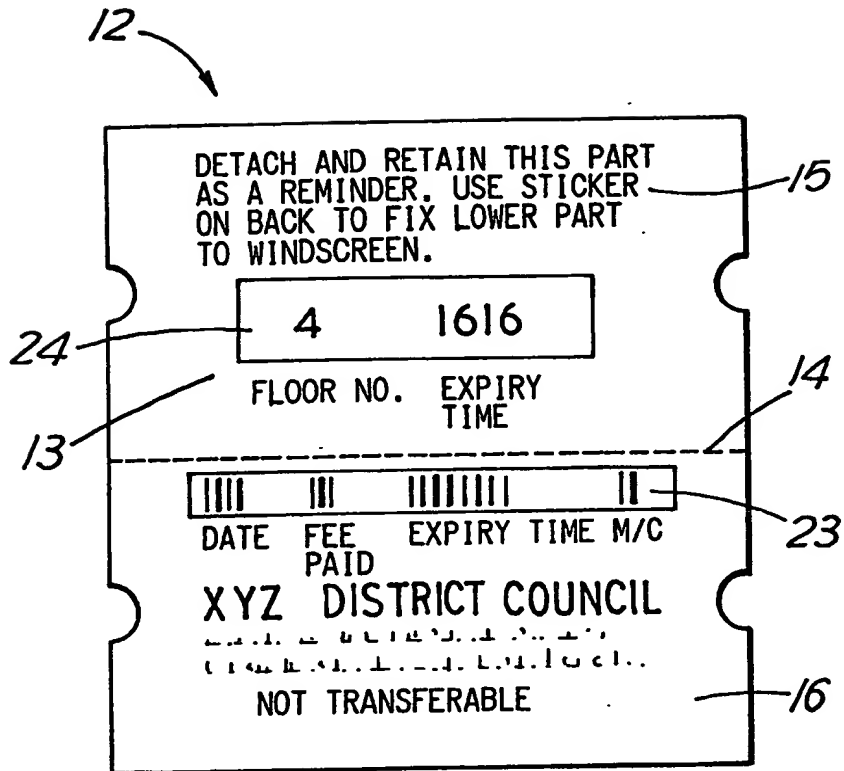PAID

XYZ DISTRICT COUNCIL
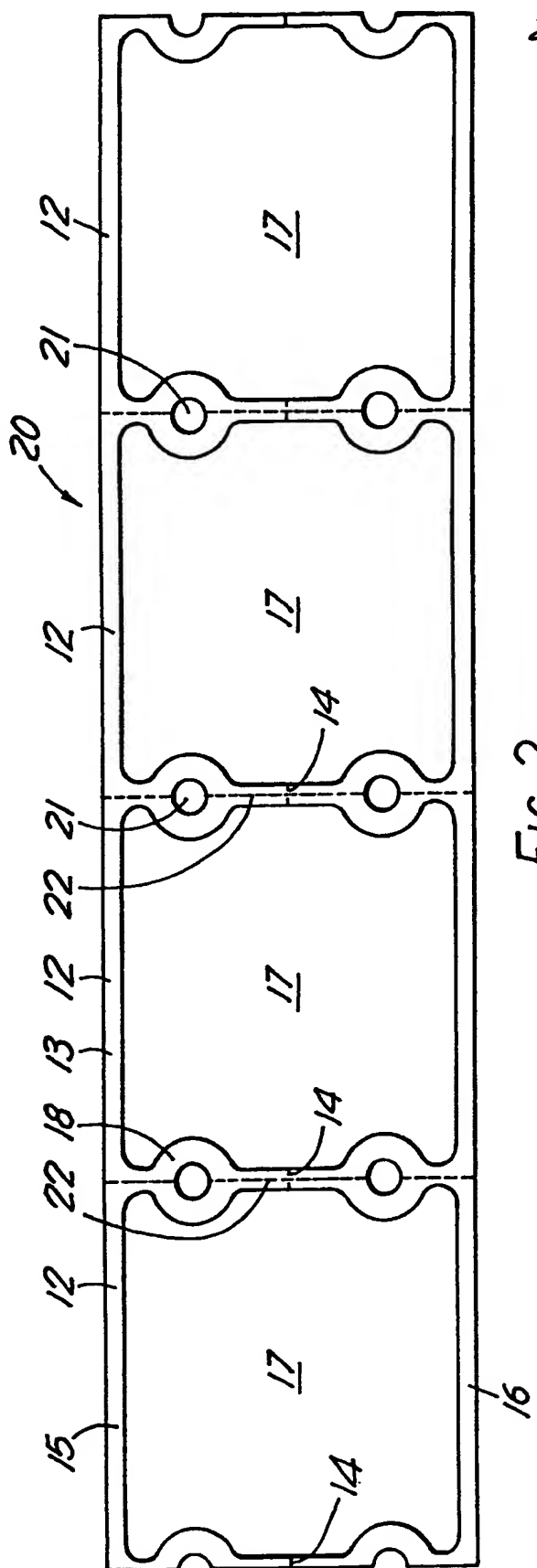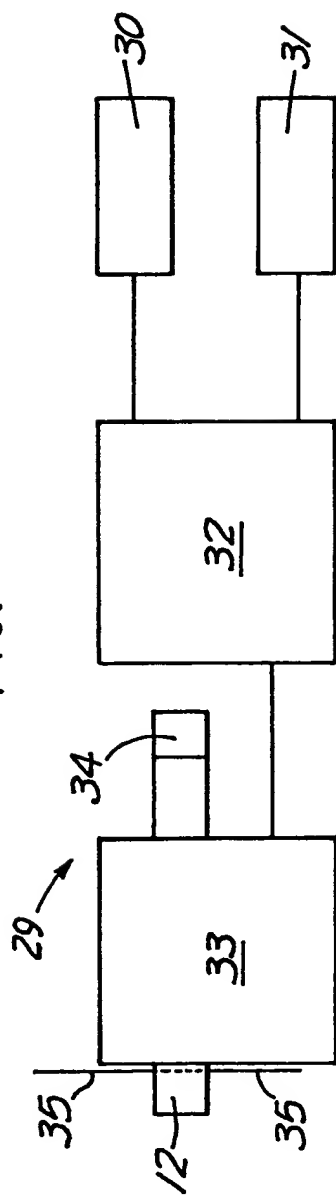
NOT TRANSFERABLE

16

FIG.1

Fig.2

FIG.3

TICKETS AND TICKET ISSUING MACHINE

This invention relates to tickets and ticket issuing machines, particularly suitable for use in controlling car parking of the "pay and display" type, in which a ticket is issued by a ticket issuing machine on receipt of payment so that the ticket is printed with data which indicates the date and expiry time of the period paid for and usually also the fee paid. The ticket is provided with adhesive means for adhering the ticket to a car windscreen so that a parking warden or attendant can inspect the ticket and check whether or not the vehicle is legally parked.

Conventionally the information concerning time is printed only once on the ticket and is printed in a conventionally readable form for indicating time such as a four figure number indicating the hours and minutes on a twenty four hour clock basis; for example 1616 indicates 4.16 p.m. (four hours sixteen minutes in the afternoon).

This has two disadvantages. Firstly the time when the owner of the car expects to return is readily apparent to any viewer and this enables would-be car thieves to know how long they may have to effect break-in and theft. Secondly the owner has no indication once he has left his car of the expiry time.

An object of the present invention is to provide an improved ticket and ticket issuing machine and method of controlling parking.

Accordingly in one aspect the present invention provides a ticket having two easily separable parts, each of the parts being printed with data concerning an expiry time, a first of the parts being designed to be detached from the remainder of the ticket and carrying the data in a conventionally readable form and the second of the parts being designed to be adhered to a car windscreen and carrying the data in a coded format.

In another aspect the invention provides a method of controlling parking which comprises issuing a ticket bearing

data concerning expiry time of the authorised parking period printed in two different formats on two easily separable parts of the ticket, a first of the formats on a first of the parts being in a form normally accepted as a time indication and a second of the formats on a second part being coded so that it is not normally readable, and issuing instructions to the user to remove the first part and retain it and attach the second part to a vehicle windscreen, whereby the data on the second part can be interpreted by a person or machine instructed in the use of the coded format. The invention extends to such a ticket bearing the instructions.

In another aspect the invention provides a ticket issuing machine including a printer, a timer, means for receiving payment, a microprocessor arranged to calculate an expiry time of a period paid for in response to the timer and means for receiving payment and arranged to control the printer, means for feeding a ticket web through the printer and issuing tickets printed with information including data concerning the expiry time, and in which the printer is arranged to print said data concerning expiry time on two different portions of the ticket in two different formats, one being a conventional time indication and the other being a coded format.

The coded format may for example be a bar code or other code requiring to be machine read in which case the parking attendant will be provided with a bar code or other reader. However the coded data may be readable solely by an attendant instructed in how to interpret the code from memory or using a written interpretation sheet.

The invention extends to tickets printed by a ticket issuing machine as above.

Preferably the ticket is a sheet divided into two panels by a separation line, for example a line of perforation, extending parallel to the direction of feed of the ticket web through the printer, and the printer is arranged to print the data along two parallel lines one on each side of the separation line.

With advantage additional information such as, in the case of a large car park, the floor or bay in which the ticket issuing machine is located is additionally printed on the part of the ticket bearing the expiry time in normally readable form.

With advantage the ticket so far described bearing the printing is the front sheet of a composite ticket having a rear sheet of smaller area bearing adhesive on its rear face which is in contact with the rear face of the front sheet which is covered with a resist layer. The rear sheet can then be peeled off and used to attach the second part of the front sheet to a car windscreen as described in GB specification 1452505.

One embodiment of ticket and ticket issuing machine will now be described, by way of example only, with reference to the accompanying drawings of which:-

Figure 1 shows the front face of a ticket,

Figure 2 shows the rear face of a ticket web of which the ticket of Figure 1 forms one section, and

Figure 3 shows diagrammatically a ticket issuing machine for providing tickets of the form shown in Figure 1.

A ticket, generally designated 12, comprises a front sheet 13, divided by a separation line in the form of a line of perforations 14 into an upper part 15 and a lower part 16, together with a rear sheet 17. The rear sheet 17 is of smaller area than the front sheet so as to leave a margin of the rear surface 18 of the front sheet exposed all around it. The rear surface (not seen) of the rear sheet 17 carries an adhesive layer and the rear surface 18 of the front sheet is covered with a resist coating, e.g. a silicon coating, so that the rear sheet 17 can be peeled off the front sheet without destroying the adhesive.

As seen in Figure 2 the ticket 12 is part of a ticket web 20 provided with feed holes 21 for accurate feeding of the web through a printer in the direction of web feed parallel to the line of separation 14, and divided into individual tickets 12 by transverse perforation lines 22

extending normal to the separation line 14 and through the feed holes 21.

The front face of each ticket 12 bears preprinted information. The lower part 16, which is intended to be attached to a vehicle windscreen, bears preprinted information concerning the issuing authority and words such as "date", "fee paid" and "expiry time" and is provided with an elongate area 23 extending parallel to the direction of web feed through a printer and adjacent and associated with the words "date", "fee paid" and "expiry time". As shown data including expiry time personal to each ticket is printed in this area in coded form in this example in the form of bar code.

The upper part 15 of the ticket bears preprinted information instructing the user to separate and retain this part and adhere the lower part 16 to the windscreen of his vehicle using the peel off adhesive sheet as described in GB specification 1452505. Additionally the part 15 of each ticket is preprinted with the words "floor number" and "expiry time" and has an area 24 in which data including expiry time personal to each ticket is printed by the printer of the ticket issuing machine indicating as shown the floor number as 4 and the expiry time as 1616.

To produce this ticket requires a ticket issuing machine of the form shown very diagrammatically in Figure 3. The ticket issuing machine 29 has a means for receiving payment, such as a coin receiver 30, and a clock 31 for providing an indication of current time and date. The information from these parts is supplied to a microprocessor 32 programmed to calculate from this information an expiry time of the period paid for and to supply this information to a printer 33. A ticket web 34 is arranged to be fed through the printer and individual data printed on the tickets in turn on receipt of a fee by the fee receiver 30. The ticket issuing machine includes a detacher means 35 for detaching and issuing a ticket 12 once it has been printed with the information. As described above the printer 33 is

arranged to print at least the expiry time in two different formats in two parallel lines one above and one below the separation line 14 of the ticket.

CLAIMS

1.   A ticket having two easily separable parts, each of the parts being printed with data concerning an expiry time, a first of the parts being designed to be detached from the remainder of the ticket and carrying the data in a conventionally readable form and a second of the parts carrying the data in a coded format.

2.   A ticket according to claim 1 comprising a front sheet on which the data is printed and a rear sheet carrying adhesive and easily separable from the front sheet.

3.   A ticket according to claim 1 or claim 2 in which said two parts are easily separable by a line of perforation between them.

4.   A method of controlling parking which comprises issuing a ticket bearing data concerning expiry time of the authorised parking period, the data being printed in two different formats on two easily separable parts of the ticket, a first of the formats on a first of the parts being in a form normally accepted as a time indication and a second of the formats on the second part being coded so that it is not normally readable, and issuing instructions to the user to remove the first part and retain it and attach the second part to a vehicle windscreen, whereby the data on the second part can be interpreted by a person or machine instructed in the use of the coded format.

5.   A ticket or method according to any of claims 1 to 4 in which the coded format is a bar code.

6.   A ticket or method according to any of claims 1 to 5 in which the ticket is also printed with information relating to the position of a ticket issuing machine.

7.   A ticket issuing machine including a printer, a timer, means for receiving payment, a microprocessor arranged to calculate an expiry time of a period paid for in response to the timer and means for receiving payment and arranged to control the printer, means for feeding a ticket web through the printer and issuing tickets printed with information including data concerning the expiry time, and in which the

printer is arranged to print said data concerning expiry time on two different parts of the ticket in two different formats, one being a conventional time indication and the other being a coded format.

8.   A ticket issuing machine according to claim 7 in which the coded format is a bar code.

9.   A ticket issuing machine according to claim 7 or claim 8 in which the printer is arranged to also print on the ticket information relating to the position of the ticket issuing machine.

10.   A ticket issuing machine according to any of claims 7 to 9 in combination with a bar code reader designed to read the coded format data.

11.   A ticket issued by the ticket issuing machine according to any of claims 7 to 10.

12.   A ticket issuing machine substantially as described herein with reference to or as illustrated in the accompanying drawings.

13.   A ticket substantially as described herein with reference to or as illustrated in Figures 1 and 2 of the accompanying drawings.

14.   A method of controlling parking substantially as described herein with reference to or as illustrated in the accompanying drawings.

Patents Act 1977	Application number
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Relevant Technical Fields	Search Examiner G J W RUSSELL
(i) UK Cl (Ed.L) B6A (AL); B8F (FBG); G4T (TAE)	
(ii) Int Cl (Ed.5) B42D 15/00; G07B 1/00; G07F 17/42; G09F 3/02	Date of completion of Search 23 NOVEMBER 1993
Databases (see below) (i) UK Patent Office collections of GB, EP, WO and US patent specifications. (ii) ONLINE DATABASES: WPI	Documents considered relevant following a search in respect of Claims :- 1-14

Categories of documents

X: Document indicating lack of novelty or of inventive step.

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E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&:   Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages	Relevant to claim(s)
A	GB 2199287 A (TELPARK) see page 6 line 15 - page 7 line 20	1
A	GB 2141569 A (FKI) see page 2 lines 11-23	1, 7
X	US 4337890 (ZUHLKE) see column 2 line 63 - column 3 line 62	1, 3
X	US 4260656 (VIDAC) see column 6 lines 37-57	1-3

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